September 20, 2002

ATTN: Gary Flamm
Project Manager, Outdoor Lighting
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

RE: Response to NEMA Letter, September 12, 2002

Dear Mr. Flamm:

This letter is the Watt Stopper's response to NEMA's September 12th letter to the Commission regarding outdoor lighting. As we have reviewed their concerns, particularly item three "Lighting Controls to Reduce Outdoor Lighting", we do not share the same concern or views as the NEMA Task Force.

First, the statement that outdoor lighting controls will not reduce peak energy demand is mistaken. For us who lived through the crisis in California, we were surprised to discover the peak demand included the time frame between 5PM and 8PM. What we learned was that winter seasons with reduced hours of sunlight caused peak demand to occur when businesses were still open, individuals were returning home (and turning on lights), and street lights, parking lot lights and other exterior lights were turning on at the same time. Being able to reduce exterior lighting would allow counter measures in the event of another energy demand crisis of similar circumstances. It has the potential to reduce the lighting load for exterior lighting as was available during the crisis in every building that had interior reduced light switching per T24 Section 131.

Second, the statement that exterior lighting control reduction is not technologically feasible is also incorrect. Reducing exterior lighting loads by switching off selected luminaries, although a simple control method, has been an effective control strategy for many years. Having multiple levels of exterior lighting by switching luminaire groups separately is a design practice used on most retail, public and commercial buildings today. This has been true for at least the past 20 years. A large percentage of all time clocks and lighting control systems used for exterior lighting control provide this specific function. Technologically, this method of control is available, proven and in wide use practice. Besides The Watt Stopper, other manufactures whose controls are used for this purpose are Intermatic, Tork, Paragon, PCI (Power Line Communications), Lithonia (Synergy system), and many others.

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Because The Watt Stopper's expertise is lighting controls and not lighting design and risk assessment, we cannot directly speak to the claim of *"risk to personal safety for the general public caused by extreme variations in lighting uniformity and visual adaptation"* as presented by NEMA. However, we can speak to the common practice of reducing exterior lighting levels by switching off selected luminaires. In situations where light level is a safety concern, such as ATM lighting or areas of increased vandalism, crime, etc., different control design practices are employed to accommodate these circumstances. We support providing multi-level control of exterior lighting so the capability of reducing lighting exists. If it is provided, its actual operation can then be adapted for the specific needs of the situation. To further support this issue, the IES Handbook makes recommendations for proper illumination levels for roadway, parking lot, security and other areas. It makes reference to the fact that "during periods of nonuse, the illuminance of certain parking facilities may be turned off or reduced to conserve energy. . .". The Handbook continues on to make recommended illuminance levels for this reduced lighting.

Third, it is true that step dimming systems are available for indoor lighting systems. The Watt Stopper makes products specifically for this purpose. This same technology has been used in outdoor or wet locations. The Watt Stopper currently makes an outdoor wet location version of our step dimming system. This system can be time base controlled and also integrates with our outdoor occupancy sensors to provide occupancy based control as well. These products are not in wide use today because market demand is presently low. The Watt Stopper is prepared and anxious to provide these products on a larger scale as the market needs develop. Currently the majority of reduced outdoor lighting control is done by switching off luminaires as noted previously.

In summary, the technology for implementing luminaire switching controls to reduce outdoor lighting has existed and has been common practice for many years. Step dimming controls for outdoor lighting is available but is not widely used. It is not just technologically feasible, but has been technologically accomplished. From our perspective, common practice of reducing outdoor lighting has not shown significant risks. Where it might be of concern, proper design considerations can accommodate these safety issues.

We do not feel the CEC's timetable on outdoor lighting measures for controls too aggressive. Rather, we believe the CEC is taking good steps to formally adopt what has been common practice and proven for many years.

Sincerely,

Harold Jepsen P.E.
Director Product Marketing
The Watt Stopper

CC: Jerry Mix, TWS
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